



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,468	01/16/2002	Barrie Hart	68.0292	6105

7590 12/15/2004  
Schlumberger Technology Corporation  
Schlumberger Reservoir Completions  
14910 Airline Road  
P.O. Box 1590  
Rosharon, TX 77583-1590

EXAMINER

PANTUCK, BRADFORD C

ART UNIT	PAPER NUMBER
----------	--------------

3731

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/050,468

Applicant(s)

HART ET AL.

Examiner

Bradford C Pantuck

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on October 27, 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25, 27, 28, 30, and 35-47 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6-25, 27, 28, 30 and 35-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 39-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group I (claims 1, 5 and 39-42) in the reply filed on 10/27/2004 is acknowledged. New claims 43-47 will be examined with this group, as well.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 39-47 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,488,702 to Besselink. Regarding Claims 1, 40, and 43, Besselink discloses an expandable device (stent shown in Fig. 5A) with many expansion members [Column 2, lines 17-29], including many cells that expand from a closed to an opened state. Each cell (Figure 6 shows such a unit) has a thin strut (8) pivotably connected to a thick cell (9) at respective joints (12 and 12) [see Fig. 6 and Column 5, lines 48-63]. The verb “to pivot” means: “to cause to rotate, revolve, or turn.” Certainly, as one can see from the progression from Figure 5A to Figure 5B or from the progression from Figure 6 to Figure 8, strut 8 pivots relative to strut 9 about

coupling junction 12. The thickness ratio of the thick strut to the thin strut will determine the force required to open and close the tubular member.

Regarding Applicant's claimed intended use "for use in a well": Examiner contends that Besselink's expandable stent is capable of use in a well bore. Some oil well bores have extremely small diameters; Applicant does claim any structure that sets the invention apart from the cited prior art reference.

3. Regarding claim 5, Besselink discloses a tubular stent that expands radially when each individual cell expands [Column 5, lines 31-48]. Such a tubular structure would exert force on the lumen in which it is placed.
4. Regarding Claims 39 and 47, Besselink discloses a method of expanding his stent including all of the Applicant's limitations. In *Column 5, lines 44-48*, Besselink discloses applying an expanding force to the wall in a radially outward direction in order to transition the many bistable cells from a contracted state to an expanded state [see Fig. 5A to Fig. 5B].
5. Regarding Claims 41, 42, and 44, Besselink discloses "one or more expansion rings" (324 or 328) positioned around his expandable tubular stent, which are capable of use as well bore liners and capable of blocking sand [Column 9, line 61 to Column 10, line 16]. Once again, although these expandable members (324 and 328) are not necessarily intended for use in a well bore, they are intended for an *analogous* and *similar function* (maintaining the patency of a blood vessel) and are therefore surely capable of performing the claimed intended use.

Art Unit: 3731

6. Regarding claims 45 and 46, the thickness ratio of the thick strut to the thin strut appears from Figure 5B to be 3:1 or greater. Besselink teaches various geometries and shapes and other means of making one strut less likely to bend than the other [Column 6, lines 6-10].

*Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradford C Pantuck whose telephone number is (571) 272-4701. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone

Art Unit: 3731

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*BCP*  
BCP

December 9, 2004

*ANHTUAN T. NGUYEN*  
ANHTUAN T. NGUYEN  
PRIMARY EXAMINER

*12/13/04*